CLAIMS

1. Ready-to-use composition for the oxidation dyeing of keratinous fibres, in particular human keratinous fibres and more particularly human hair, comprising, in a carrier appropriate for dyeing keratinous fibres:

-(a) at least one enzyme of the laccase type;

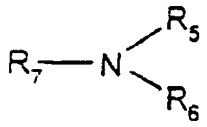
-(b) at least one alkalinizing agent chosen from the group consisting of:

(i) a basic amino acid;

(ii) a compound of the following formula (A):

$X(OH)_n$ in which X represents K, Li when n=1; X represents Mg, Ca when n=2; X represents $N^+R_1R_2R_3R_4$ with R_1, R_2, R_3, R_4, which are identical or different, denoting a C_1-C_4 alkyl radical, a C_1-C_4 monohydroxyalkyl or C_2-C_4 polyhydroxyalkyl radical, when n=1;

(iii) a compound of the following formula (B):



in which R_5 denotes a C_1-C_6 alkyl radical, a C_1-C_6 monohydroxyalkyl or C_2-C_6 polyhydroxyalkyl radical; R_6, R_7, which are identical or different, denote a hydrogen atom, a C_1-C_6 alkyl radical, a C_1-C_6 monohydroxyalkyl or C_2-C_6 polyhydroxyalkyl radical;

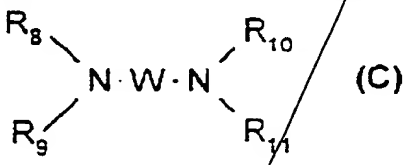
with the proviso that

• R_5, R_6, R_7 do not simultaneously denote the C_2 β-hydroxyalkyl radical,

• if R_6 and R_7 simultaneously denote H, then R_5 does not denote a C_2 monohydroxyalkyl or branched C_4 monohydroxyalkyl radical,

• if R_5 denotes hydrogen or a C_1-C_6 alkyl radical and at the same time R_6 denotes a C_1-C_6 alkyl radical, then R_7 does not denote H or a C_1-C_6 alkyl radical;

(iv) a compound of the following formula (C):



(C)

in which W is a propylene residue optionally substituted with a hydroxyl group or a C_1-C_4 alkyl radical; R_8, R_9, R_{10} and R_{11}, which are identical or different, represent a hydrogen atom, a C_1-C_4 alkyl or C_1-C_4 hydroxyalkyl radical;

- (c) at least one oxidation dye with the exception of autooxidizable indole dyes.

2. Composition according to Claim 1, characterized in that the laccase(s) are chosen from laccases of plant origin, animal origin, fungal origin, bacterial origin or are obtained by biotechnology.

3. Composition according to either of Claims 1 to 2, where the laccases are chosen from those produced by plants performing chlorophyll synthesis.

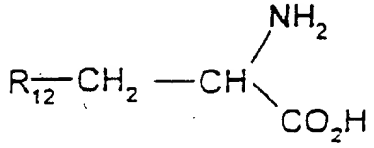
4. Composition according to Claim 3, where the laccases are chosen from those extracted from Anacardiaceae or Podocarpaceae, Rosmarinus off., Solanum tuberosum, Iris sp., Coffea sp., Daucus

carrota, Vinca minor, Persea americana, Catharenthus roseus, Musa sp., Malus pumila, Gingko biloba, Monotropa hypopithys (Indian pipe), Aesculus sp., Acer pseudoplatanus, Prunus persica, Pistacia palaestina.

5. Composition according to Claim 2, where the laccases are chosen from those derived from Pyricularia orizae, Polyporus versicolor, Rhizoctonia praticola, Rhus vernicifera, Scytalidium, Polyporus pinsitus, Myceliophtora thermophila, Rhizoctonia solani, Tramates versicolor, Fomes fomentarius, Chaetomium thermophile, Neurospora crassa, Coriolus versicol, Botrytis cinerea, Rigidoporus lignosus, Phellinus noxius, Pleurotus ostreatus, Aspergillus nidulans, Podospora anserina, Agaricus bisporus, Ganoderma lucidum, Glomerella cingulata, Lactarius piperatus, Russula delica, Heterobasidion annosum, Thelephora terrestris, Cladosporium cladosporioides, Cerrena unicolor, Coriolus hirsutus, Ceriporiopsis subvermispora, Coprinus cinereus, Panaeolus papilionaceus, Panaeolus sphinctrinus, Schizophyllum commune, Dichomitius squalens and variants thereof.

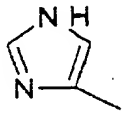
6. Composition according to any one of Claims 1 to 5, characterized in that the laccase(s) are provided in quantities ranging from 0.5 to 2000 lacu, or from 1000 to 4×10^7, or from 2×10^6 lacu units, per 100 g of composition.

7. Composition according to any one of Claims 1 to 6, characterized in that the basic amino acids correspond to the following formula (D):



(D)

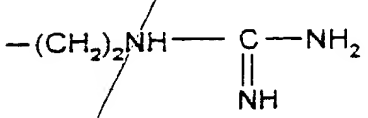
where R_{12} denotes a group chosen from:



$-(CH_2)_3NH_2$;

$-(CH_2)_2NH_2$

$-(CH_2)_2NHCONH_2$;



8. Composition according to any one of Claims 1 to 6, characterized in that the compounds of formula (B) are chosen from diethanolamine, monoisopropanolamine, diisopropanolamine, triisopropanolamine, 2-amino-2-methyl-1,3-propanediol, 2-amino-2-ethyl-1,3-propanediol, 2-amino-1-n-butanol, 1-diethylamino-2,3-propanediol, tris(hydroxymethyl)aminomethane, ethylmonoethanolamine.

9. Composition according to any one of the preceding claims, characterized in that the alkalinizing agents are used in contents by weight

ranging from 0.001% to 20%, preferably from 0.01% to 5% and still more preferably from 0.05% to 3%, relative to the total weight of the composition.

10. Composition according to any one of the preceding claims, characterized in that the oxidation dyes are oxidation bases chosen from ortho- or para-phenylenediamines, bisphenylalkylenediamines, ortho- or para-aminophenols, and heterocyclic bases, as well as the addition salts of these compounds with an acid.

11. Composition according to Claim 10, characterized in that the oxidation bases are present in concentrations ranging from 0.0005 to 12% by weight relative to the total weight of the composition.

12. Composition according to Claim 10, characterized in that the oxidation dyes are couplers chosen from meta-phenylenediamines, meta-aminophenols, meta-diphenols, heterocyclic couplers, and the addition salts of these compounds with an acid.

13. Composition according to Claim 12, characterized in that the couplers are present in concentrations ranging from 0.0001 to 10% by weight relative to the total weight of the composition.

14. Composition according to any one of Claims 10 to 13, characterized in that the addition salts with an acid of the oxidation dyes are chosen from hydrochlorides, hydrobromides, sulphates, tartrates, lactates and acetates.

15. Composition according to any one of Claims 1 to 14, characterized in that it contains, in addition, direct dyes.

16. Composition according to any one of Claims 1 to 15, characterized in that the medium appropriate for keratinous fibres (or carrier) consists of water or of a mixture of water and of at least one organic solvent.

17. Composition according to Claim 16, characterized in that the organic solvents may be present in proportions preferably ranging from 1 to 40% by weight approximately relative to the total weight of the composition, and still more preferably ranging from 5 to 30% by weight approximately.

18. Composition according to any one of Claims 1 to 17, characterized in that the pH varies from 4 to 11 approximately, and preferably from 6 to 9 approximately.

19. Composition according to any one of Claims 1 to 28, characterized in that it contains, in addition, at least one cosmetic adjuvant conventionally used in hair dyeing compositions, chosen from the group consisting of surfactants, polymers, thickeners, antioxidants, enzymes different from the laccases, penetrating agents, sequestering agents, perfumes, dispersing agents, film-forming agents, screening agents, vitamins, preservatives or opacifying agents.

20. Method of dyeing keratinous fibres, and in particular human keratinous fibres such as hair, characterized in that at least one ready-to-use dyeing composition as defined in any one of Claims 1 to 19 is applied to the said fibres for a sufficient time to develop the desired colour.

21. Method according to Claim 20, characterized in that it comprises a preliminary step consisting in storing in a separate form, on the one hand, a composition (A) comprising, in a medium appropriate for dyeing, at least one oxidation dye as defined in any one of Claims 1 and 10 to 14 and on the other hand, a composition (B) containing, in a medium appropriate for keratinous fibres, at least one enzyme of the laccase type as defined in any one of Claims 1 to 6, and then in mixing them at the time of use before applying this mixture to the keratinous fibres; the composition (A) or the composition (B) containing the alkalinizing agent as defined in Claims 1 and 7 to 9.

22. Multicompartment device or dyeing "kit", characterized in that it comprises a first compartment containing the composition (A) as defined in Claim 21 and a second compartment containing the composition (B) as defined in Claim 21.